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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/727,292

12/02/2003

Shinichi Tsuzaki

JCLA12308

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04/23/2007

J C PATENTS, INC.

4 VENTURE, SUITE 250

IRVINE, CA 92618

EXAMINER

MI, QIUWEN

ART UNIT

PAPER NUMBER

1655

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/23/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/727,292	TSUZAKI ET AL.	
	Examiner	Art Unit	
	Qiuwen Mi	1655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: _____                          |

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### **DETAILED ACTION**

Any rejection not reiterated is hereby dropped.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/5/2007 has been entered.

### **Claims Pending**

Applicant has cancelled claims 3-10. Claims 1, 2, and 11 are pending.

### **Claim Rejections –35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 USC § 102 (b) as being anticipated by Bryan et al (US 5,994,508).

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Bryan et al teach a process for producing an isoflavone rich protein material from soybean materials by extracting with an aqueous extractant having a substantially neutral pH (6.5-7.5) and the extractant is separated from insoluble materials to produce an extract containing the isoflavones and protein (col 3, lines 1-13; col 4, lines 20-25) by conventional liquid/solid separation processes such as filtration or centrifugation (col 5, lines 17-22). The invention has found that cool or cold separation of the protein material at temperature of about 30-90°F (-1-32°C) greatly increases the amount of the desired isoflavones recovered in the protein material (col 3, lines 45-50). The desired isoflavone compounds are solubilized in the aqueous extract along with the protein (col 4, lines 60-65). Avoiding or minimizing the washing of the separated protein material can more than double the recovery of isoflavones (col 6, lines 60-65). The isoflavone amount is 4.2 mg/g protein (which equals to 0.42 wt%) (col 7, lines 20-25).

Therefore, the reference is deemed to anticipate the instant claim above.

### **Claim Rejections –35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al (US 5,994,508) in view of Kuwata et al (US 5,874,538) and further in view of Tsujino et al (JP 2000050839) and Melnychyn (US 4,968,521).

Bryan et al teach a process for producing an isoflavone rich protein material from soybean materials by extracting with an aqueous extractant having a substantially neutral pH (6.5-7.5) and the extractant is separated from insoluble materials to produce an extract containing the isoflavones and protein (col 3, lines 1-13; col 4, lines 20-25) by conventional liquid/solid separation processes such as filtration or centrifugation (col 5, lines 17-22). The invention has found that cool or cold separation of the protein material at temperature of about 30-90°F (-1-32°C) greatly increases the amount of the desired isoflavones recovered in the protein material (col 3, lines 45-50). The desired isoflavone compounds are solubilized in the aqueous extract along with the protein (col 4, lines 60-65). Avoiding or minimizing the washing of the separated protein material can more than double the recovery of isoflavones (col 6, lines 60-65). The isoflavone amount is 4.2 mg/g protein (col 7, lines 20-25).

Bryan et al do not teach freeze-drying, soybean hypocotyls, protein content, and lipid content.

Kuwata et al teach producing soybean protein by adding to a soybean protein containing raw material an aqueous solution to form a suspension, removing insoluble components from the suspension extract to obtain an extract without affecting the content of effective components such as isoflavon (col 4, lines 43-50), followed by acid precipitation treatment carried out at pH from 5.0-5.7 (col 3, lines 12-25) at room temperature (col 5, lines 25-30). The soybean protein

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separated may be dissolved in water (col 6, lines 15-20) and powdered by methods such as freeze-drying (col 6, lines 23-27; claims 5 and 7). The soybean protein curd have a protein recovery of 25.5% by weight (col 11, lines 35-40).

Tsujino et al teach extracting soybean hypocotyls with aqueous solvent (see Abstract).

Melnychyn teaches a soybean extraction (col 5, lines 10-15) with 30% protein content and 14.2% lipid content (col 6, lines 10-15).

Therefore, it would have been *prima facie* obvious for one of ordinary skill in the art at the time the invention was made to use the freeze-drying method in Kuwata et al; the soybean hypocotyls in Tsujino et al; the protein and lipid contents in Melnychyn to extract isoflavone in Bryan et al since Kuwata et al teach that the plant investment and treatment have low cost, and extraction residues can be used in feed without any operation to remove salts (col 3, lines 5-10); Tsujino et al teach that the food has a good flavor and a high isoflavone concentration by using soybean hypocotyls extract (see Abstract); Melnychyn teaches the product has enhanced nutritional value and marked improvement in the flavor (col 1, lines 59-65); Bryan et al teach that the separation at cool temperature unexpectedly significantly increases the production of isoflavone. Since all of the inventions yielded beneficial results in producing soybean products, one of ordinary skill in the art would have been motivated to make the modifications. The result-effective adjustment in conventional working parameters (e.g., determining an appropriate

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amount of the lipid content in the product) is deemed merely a matter of judicious selection and routine optimization which is well within the purview of the skilled artisan.

Thus, the invention as a whole is *prima facie* obvious over the references, especially in the absence of evidence to the contrary.

### **Conclusion**

No claim is allowed.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qiuwen Mi whose telephone number is 571-272-5984. The examiner can normally be reached on 8 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry Mckelvey can be reached on 571-272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'M. Meller', with a long horizontal flourish extending to the right.

**MICHAEL MELLER**  
**PRIMARY EXAMINER**